ON THE BAG-SHELTERS OF LEPIDOPTEROUS LARVÆ OF THE GENUS *TEARA*.

By Walter W. Froggatt.

(Plate xiv.)

In many parts of the Australian bush one frequently comes across brown liver-coloured silken bags of an irregular funnel-shape, spun round a stout twig enclosing several others, and frequently a few leaves, all matted together and rough on the inner surface, but smooth and regular on the outside. They vary in size from 3-8 inches in diameter at the broad end, which may be quite open or loosely covered with a few silken strands; upon examination, if freshly constructed, they will be found full of very hairy caterpillars mixed up with their castings and moulted skins.

When they have served their purpose, and are abandoned by the full grown caterpillars, they will remain for a considerable time, a solid mass of skins and castings, compact and firm, protected by the strong silken coverings. These curious structures are woven round the twigs by the gregarious larvæ of several different species of moths belonging to the genus *Teara* (Family *Liparidæ*). They are constructed for shelter during the day, and are not used for pupating purposes. Hiding therein during the day, the caterpillars issue forth at dusk, feeding all night over the tree and returning to cover at daybreak. When moving about they travel in procession. The first large nest I came across I carried home, and was very much surprised next morning to see a string of large hairy caterpillars stretching right across the roof of the tent; they had emerged from the nest in the night, but were unable to find their way back.

Some twenty species of the genus, which is peculiar to Australia, have been described; most of them are short thickset moths with feathery antennæ, and the tip of the abdomen bearing a tuft of fine hairs. Our commonest species, *Teara tristis*, is generally very

slow and sluggish in its habits, and is usually found clinging to low bushes.

I have, during the last season, been fortunate in breeding out one of our largest species, which spins a somewhat different form of shelter, which is described below with the life-history of the species.

Teara contraria, Walker.

The larva, when full grown, is two inches in length, of a uniform thickness, with the head ferruginous, rounded on summit and sides, a pale median suture running into the triangular clypeus; labium and jaws small; all the head thickly covered with long reddish-brown hairs standing out in front. Thoracic and abdominal segments black across the centre, which is raised into a row of large tubercles, out of which spring a number of long fine white and reddish-brown hairs; between the segments thickly covered with small white spots, from each of which springs a short black hair. Under side pale ochreous yellow, with a double row of dark ferruginous tubercles tufted with reddish-brown hairs; legs ferruginous, black at the tips, covered with short reddish hairs; tubercles on the 1st and 2nd abdominal segments, and claspers upon the following segments covered with stout reddish-brown hairs.

The larvæ live in communities of a hundred or more, forming a felted silken bag or net of a dark reddish-brown colour on the sheltered side of the tree trunk, close to the ground, under which they hide during the day, half buried in the cast skins and excreta which accumulate beneath. They crawl up the tree at dusk, feeding upon the foliage, and returning to their retreat at daylight. In April last a clump of very fine wattles (*Acacia prominens*) were completely defoliated by them near the Penshurst railway station. Every other tree had a large bag at the foot of its trunk, while branches and trunk were festooned with strands of dirty yellow silk down to the top of the bag.

About fifty specimens of nearly mature larvæ were collected and placed in a large glass jar in the Museum, where they

remained huddled together in a hairy mass, unless disturbed, when they would all set off in a procession round the walls of their prison, one behind the other, often keeping it up for hours together. In about a fortnight they began to burrow into the loose sand at the bottom of the jar, constructing soft felted cocoons out of the hairs upon their bodies. The pupæ were stout and short, smooth, shining, of a reddish-brown colour, with the anterior portion small and the tip of the abdomen curved upwards. The first moths emerged about the end of September, and the last two months later; but from the fifty specimens not more than eight moths were obtained.

The moths vary considerably in size; the male about 2 inches across the wings, and the female often over $2\frac{1}{2}$ inches; they are of a general dark brown colour, with a small oval white spot in the centre of the forewings; and a very small and indistinct one in the hind ones. The head and thorax are thickly clothed with long brown hairs, bright yellow and lance-shaped at the tips; the upper surface of the abdomen is covered with bright reddish-orange barred with black at the apex of each segment, and tipped with hairs of the same colour. The moths are very difficult to breed, those mentioned being the first I have obtained in four seasons. Mr. E. Anderson, of Melbourne, to whom I am indebted for the identification of the moth, tells me that he knows no other instance of success in breeding them, though the larvæ are common in Victoria and New South Wales.

EXPLANATION OF PLATE XIV.

Teara contraria, Walk.

Fig. 1.—Larva.

Fig. 2.—Pupa in cocoon.

Fig. 3.—Moth.

Fig. 4.—Rough sketch showing bag shelter formed at the base of a tree stem.

Figs. 5-6.—Forms of bag shelters made by larvæ of *Teara* spp.